DAYTONAUDIO

2-INPUT 60WPC STEREO AMPLIFIER

Model: APA100 User Manual

DAYTONAUDIO

APA100   2-INPUT STEREO AMPLIFIER

POWER

SPEAKERS
A   B
ON
OFF

BALANCE
LEFT   RIGHT

VOLUME
MIN   MAX
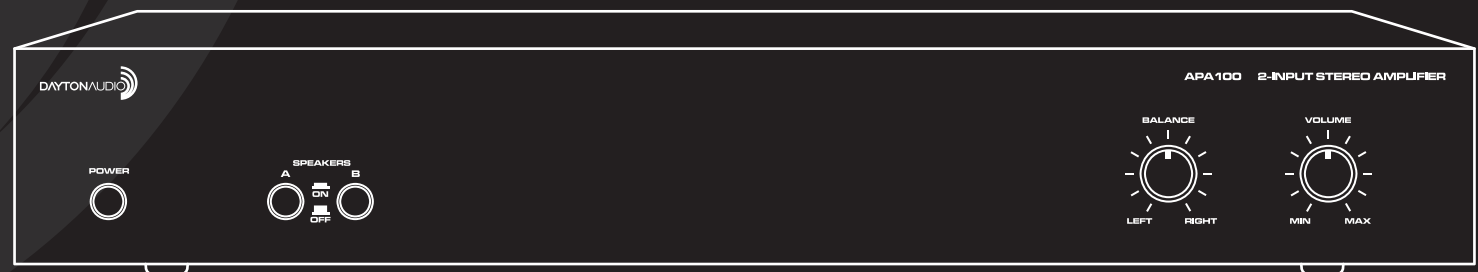
Safety Instructions

CAUTION: To reduce the risk of electric shock, do not remove the cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent the risk of fire or electrical shock, do not expose this device to rain or moisture, or set products containing water on top of this device.
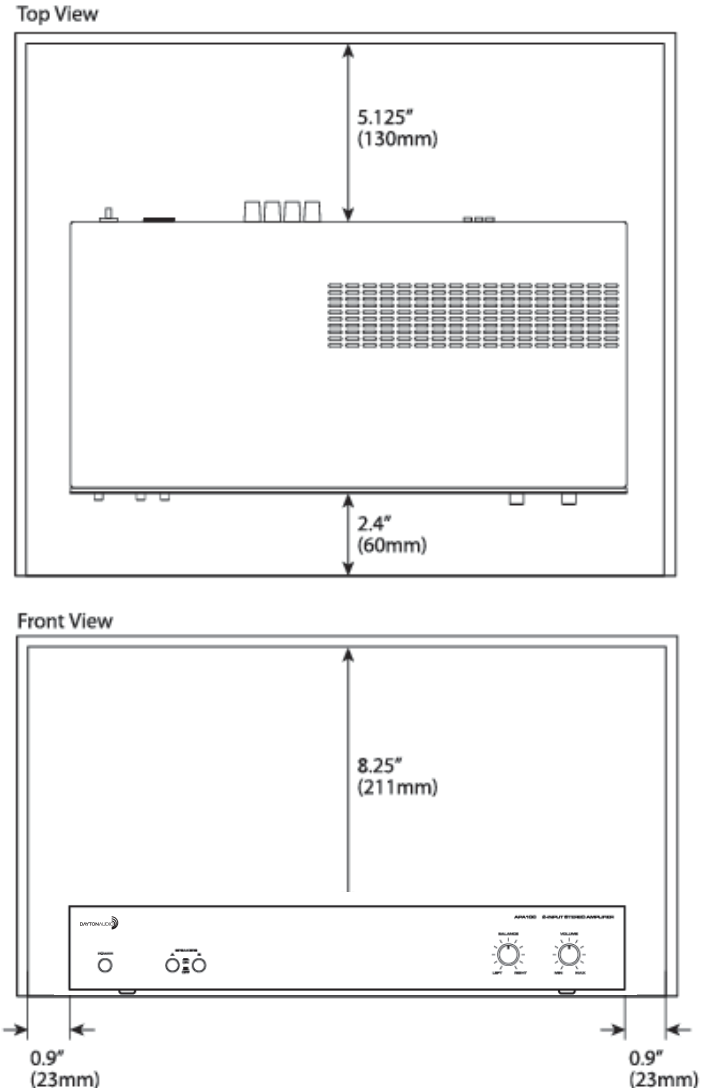
Safety Instructions

1. Read and understand these instructions prior to operating this device.
2. Retain these instructions for future reference.
3. Adhere to all warnings on this device and in this manual to avoid possible damage or harm to your person or this device.
4. Adhere to all operation and user instructions.
5. Do not use this device outdoors without adequate effort to avoid moisture. To eliminate the risk of electric shock, do not use this device in the presence of moisture.
6. Clean only with a soft, dry cloth.
7. Do not block ventilation openings in accordance with these instructions. slots in this device cabinet are provided for ventilation, to prevent it from overheating, and to ensure reliable operation.
8. Do not install or use this device near sources of heat, including heating vents, registers, radiators, stoves, or other electronic devices that produce heat.
9. This device has been designed and assembled with a polarized power cord. Do not make any attempts to alter the plug or to defeat the safety purpose of the polarized plug. If you are unable to plug this device into your outlet, contact a licensed electrician for assistance.
10. Do not install the power cord in a location where it can be damaged, pinched or walked upon. Do not install the power cord in a location where it can become a trip hazard to persons walking by.
11. Only connect electronic devices/accessories intended for use with this type of product.
12. Always install this device on a firm surface. If used with a cart, take adequate measures to ensure this device will not fall off due to tipping and/or movement.
13. Unplug this device if not used for extended periods of time and during lighting storms.
14. Refer all service work to an authorized Dayton Audio dealer or qualified technician.
15. Do not install this device in a position that prevents access to the electrical cord/plug.
16. This device is a double insulated, CLASS II electrical device with no redundant earth ground.
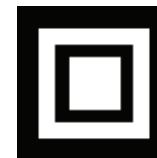
Clearance Requirements

Follow the general diagram below to assure proper ventilation.

Top View

Front View

Table of Contents

Introduction

The Dayton Audio APA100 is a 2-channel, dual-source power amplifier with auto-source selection. It features two audio line inputs with a loop-out to another zone, receiver, or device from the LINE 2 source.

The APA100 can be used for additional power when used with a multi-zone audio system.

The APA100 is a Class AB amplifier rated at 75 watts per channel into 4 ohms, and 60 watts per channel into 8 ohms. In Bridged Mono mode, both amplifier channels are combined together for a higher-powered monaural output. In bridged mode this amplifier is rated at 160 watts into a single 8 ohm load. Each amplifier output channel incorporates robust protection circuitry for reliability and safety.

Thermal Protection

The APA100 amplifier is designed with circuitry to safeguard the unit under thermal load conditions. Thermal protection mode will only engage when the unit has been run at high-volume for extended periods of time without adequate ventilation and/or when speaker impedance is below the minimum level for the amplifier.

In thermal protection mode the amplifier will automatically stop output; immediately turn the amplifier off and verify the speaker impedance is above the minimum rating for this amplifier. Also check for adequate ventilation around the amplifier and make necessary adjustments. Once the amplifier has reached safe operating temperatures, the unit may be powered on.

Protection Circuitry

Circuitry has been designed into this amplifier to safeguard against a short-circuit condition including shorted speaker wires or a shorted voice coil.

If this fault condition occurs, immediately turn off the amplifier and check for possible short conditions.

Un-switched Outlet

The APA100 has an un-switched electrical outlet on the rear panel for use with low power auxiliary devices; up to 400 watts. This outlet provides power as long as the APA100 is plugged in, even if the unit is not turned on.
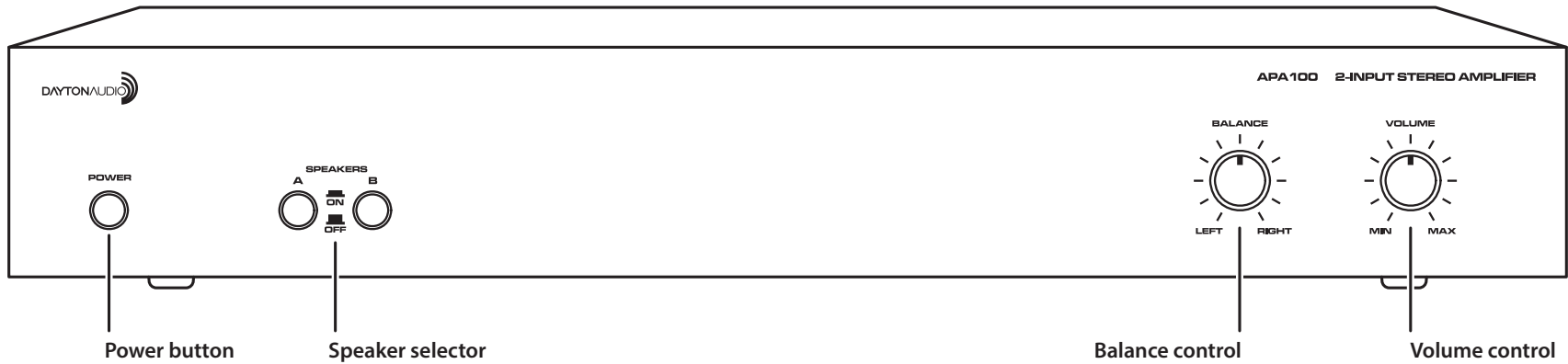
Manual/Auto On

With the Manual/Auto On switch on the rear panel set to Manual, use the Power switch on the front panel to turn the unit on/off. Place the switch in the Auto On position and the front panel Power switch to on, the APA100 will turn on when it detects a signal at either input and turn off when no signal is sensed.
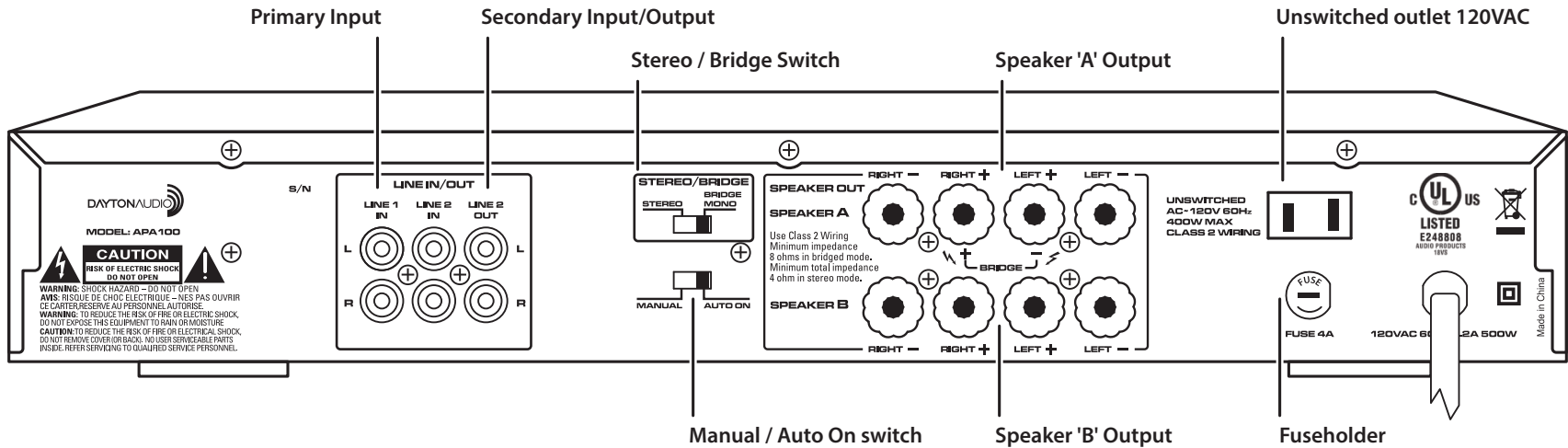
Auto-Source Selection

The APA100 features auto-source selection. Connect the primary source to the LINE 1 input, and the secondary source to the LINE 2 input. When the source connected to the LINE 1 input is activated, the amplifier will automatically switch to the LINE 1 input. When the source connected to the LINE 1 input has been deactivated, the amplifier will automatically switch back to the LINE 2 input.

APA100 Front Panel

DAYTONAUDIO

APA100   2-INPUT STEREO AMPLIFIER

POWER

SPEAKERS
A   B
ON
OFF

BALANCE

VOLUME

LEFT   RIGHT

MIN   MAX

Power button   Speaker selector

Balance control   Volume control

APA100 Rear Panel

Primary Input   Secondary Input/Output

Stereo / Bridge Switch   Speaker 'A' Output

Unswitched outlet 120VAC

S/N   LINE IN/OUT

DAYTONAUDIO

MODEL: APA100

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: SHOCK HAZARD – DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE – NES PAS OUVRIR
CE CARTER,RESERVE AU PERSONNEL AUTORISE.
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE
CAUTION: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK,
DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS
INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

LINE 1
IN

LINE 2
IN

LINE 2
OUT

L

R

L

R

STEREO/BRIDGE

STEREO   BRIDGE
MONO

MANUAL   AUTO ON

SPEAKER OUT

SPEAKER A

Use Class 2 Wiring
Minimum impedance
8 ohms in bridged mode.
Minimum total impedance
4 ohm in stereo mode.

SPEAKER B

RIGHT –   RIGHT +   LEFT +   LEFT –

BRIDGE

RIGHT –   RIGHT +   LEFT +   LEFT –

UNSWITCHED
AC-120V 60Hz
400W MAX
CLASS 2 WIRING

FUSE

FUSE 4A   120VAC 60   2A 500W

UL LISTED
E248808
AUDIO PRODUCTS
18VS

Made in China

Manual / Auto On switch   Speaker 'B' Output   Fuseholder

System Configuration – Stereo Mode

1. Unplug the APA100 from the power outlet.
2. Set the Stereo/Bridge switch to STEREO.
3. Connect the audio line output from a stereo audio source to the left and right LINE 2 input jacks; the secondary input.
4. Connect the audio line output from a stereo audio source to the left and right LINE 1 input jacks; the primary input.
5. Connect speakers to the SPEAKER A/B LEFT and RIGHT output terminals, observing proper polarity.
6. Connect the amplifier to power. Turn the amplifier On and control the unit from the front panel.
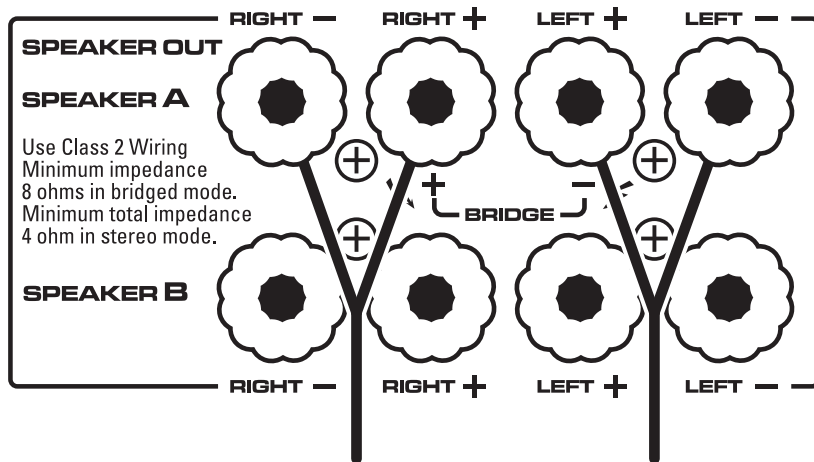
System Configuration – Bridged Mode

1. Unplug the APA100 from the power outlet.
2. Set the Stereo/Bridge switch to BRIDGED.
3. Connect the audio line output from a stereo audio source to the left and right LINE 2 input jacks; the secondary input.
4. Connect the audio line output from a stereo audio source to the left and right LINE 1 input jacks; the primary input.
5. Connect a speaker to the SPEAKER "A" RIGHT (+) positive and LEFT (−) negative output terminals, observing proper polarity.
6. Connect the amplifier to power. Turn the amplifier On and control the unit from the front panel.

Stereo Connection Diagram

From source

8 ohm speakers
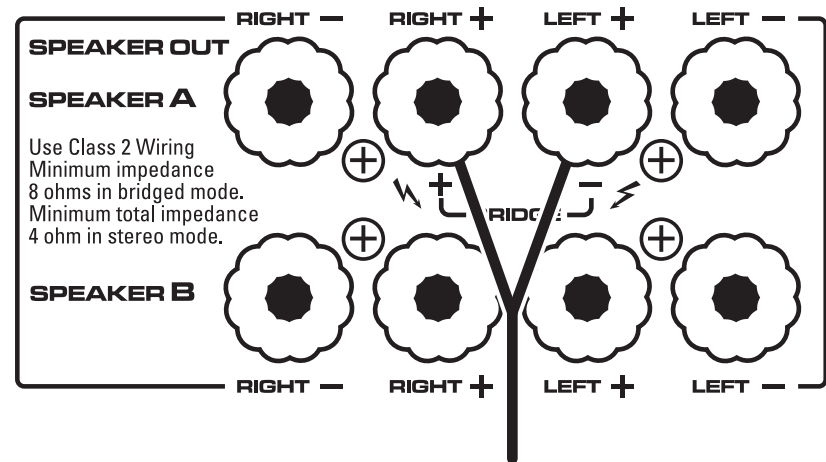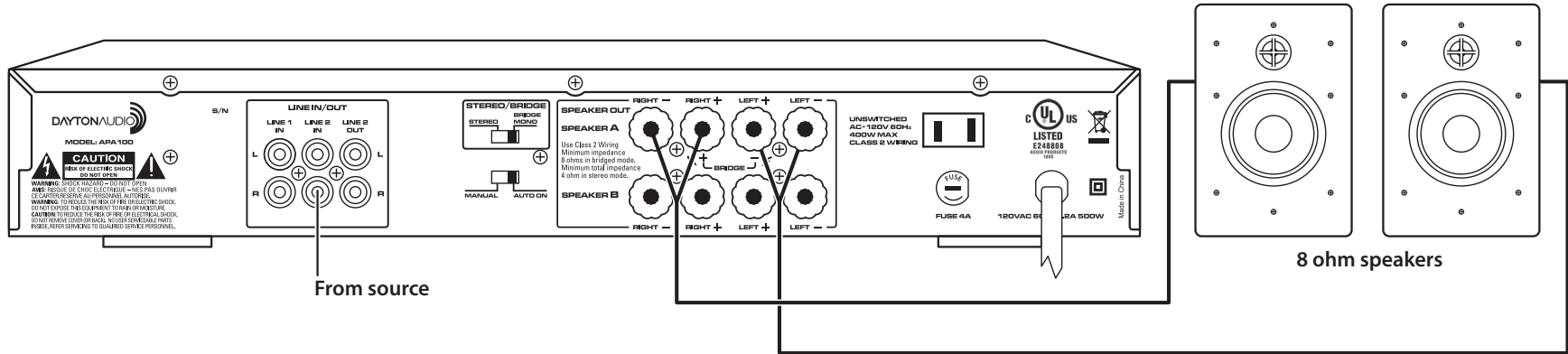
Bridged Mono Connection Diagram

From source

8 ohm speaker
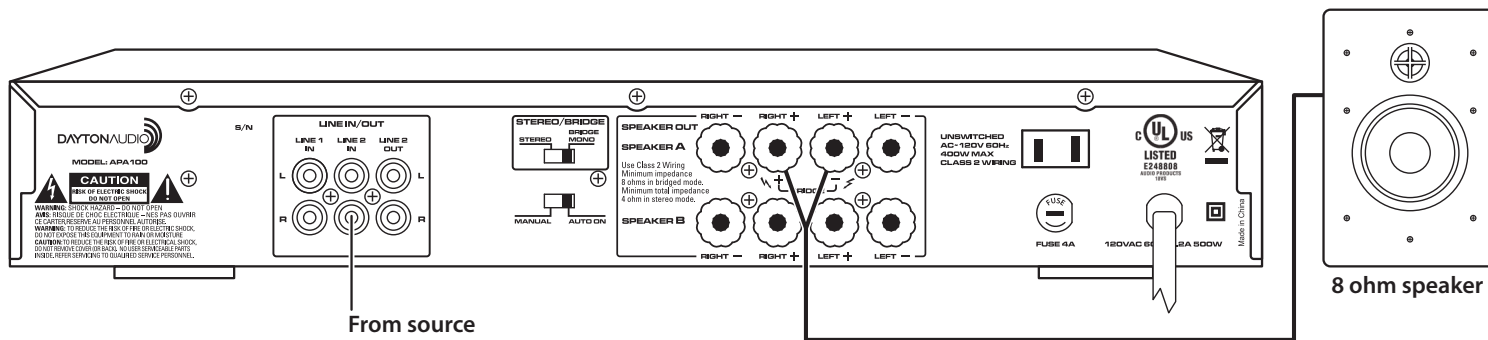
Specifications

Output Power	60W per channel @ 8 ohms
	75W per channel @ 4 ohms
	160W bridged mono @ 8 ohms
Total Harmonic Distortion	<1.0% @ 1KHz
Signal to Noise Ratio	100 dB A-weighted
Frequency Response	10 ~ 30,000 Hz +0.0 dB/-3.0 dB @ 8 ohms 1W
Input Sensitivity	900 mV 50W @ 8 ohms
Crosstalk	>70 dB @ 1,000 Hz
Power	120VAC, 60 Hz, 4.2A
Dimensions	16.5" (W) x 8" (D) x 2.5" (H)
Weight	10.4 lbs.

DAYTON AUDIO

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